DOCUMENT RESUME

ED 207 519 IR 009 601

AUTHOR Vincent, Philip
TITLE Cost-Effective Training Strategy at Field Level Strengthens Influence of Extension Agents in Community.
INSTITUTION Agency for International Development (Dept. of State), Washington, D.C. Clearinghouse on Development Communication.
PUB DATE Jun 81
NOTE 18p.
JOURNAL CIT Development Communication Report; n34 Jun 1981

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Developing Nations; Extension Agents; *Extension Education; Folk Culture; *Group Dynamics; *Interpersonal Competence; Literacy Education; Poetry; Sensitivity Training; *Training Methods
IDENTIFIERS Bangladesh; *Slow Scan Television; Venezuela

ABSTRACT

Communications for Social Development, a regional training program designed by UNICEF to teach field extension agents in developing countries about interpersonal and group communications, is described in the lead article in this issue of Development Communication Report. The strategy employed in the development of this program involves a simple pyramid of resources, with trainers receiving instruction at participating institutions throughout a region and then returning to their home countries to begin training others at two levels--inservice and preservice. Other articles in this issue provide information on (1) a new set of logos designed for the Clearinghouse on Development Communication to illustrate the main developmental sectors covered in this newsletter; (2) the use of folk poetry in Bangladesh to communicate timely messages; (3) a literacy campaign in Venezuela which highlights a multimedia approach; and (4) slow scan television, a technique that makes picture communication possible over inexpensive audio channels such as telephone lines. Book reviews and ERIC resources are also included, as well as a regular feature called "Dilemmas in Country X." (Author/LLS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED207519

COST-EFFECTIVE TRAINING STRATEGY AT FIELD LEVEL STRENGTHENS INFLUENCE OF EXTENSION AGENTS IN COMMUNITY

by

Philip Vincent

Development Communication Report
June 1981
No. 34

IR009601

development communication report

1414 22nd Street, N.W.
Washington, D.C.
20037 USA

June 1981
No. 34

Cost-Effective Training Strategy at Field Level Strengthens Influence of Extension Agents in Community

by Philip Vincent

It will come as a surprise to no one in the field of development, and particularly development communications, that successful projects have the active support of the community in which they are based. Promotion of community support and involvement will call for different approaches, depending on cultural, ethnic, political, and human circumstances. Many examples of how success has been achieved can be found in the reports and documents of development agencies and universities. But what, if anything, are the common factors in these experiences?

Community-based projects may be defined as those which could or should arise from the specific situation of a community and which relate directly or indirectly to that community's needs. Whether the project is derived by or with the people, or is generated by a political imperative to meet a generalized need, someone must be the arbiter of the project. He or she will dispense information, troubleshoot the inevitable problems, and interpret the progress for the managers. In most situations, the individual given this role is the extension agent of one ministry or another.

The field-based officers from any ministry are trained with a specific discipline in mind, such as agriculture, sanitation, or community development. Many countries include some teaching or outreach skills in the curricula of the institutes which train extension agents. The staff of the Project Support Communication (PSC) service of UNICEF's (United Nations Children's Fund) Eastern Africa Office reviewed the curricula in some of the training institutes in the region, and found that none made it a priority to teach trainees about interpersonal and group communications.

Clearly, development must be based on the instruction and motivation of the rural and urban populations. An extension officer is the common denominator in most information transactions and he or she must be equipped with the necessary skills to understand the relationships within the community, to understand how to improve his or her own standing and influence, and to become a conduit to carry new ideas from the community to the government machinery.

Training Extension Agents

But how can such a cadre of extension agents be developed? Who can undertake the enormous task of retraining the field-based officers from each ministry? Will the governments be willing to adapt the curricula of their training institutions to ensure that the subsequent generations of officers will have these communications skills?

These rather daunting problems have been approached in the past by sending specialists overseas for training, in the hope that their new skills would "trickle down" to the field workers in their ministries. Because this has not happened, we in UNICEF PSC have tried a different approach.

From our experience, it seemed that a training program for development extension workers, derived *from* the stated needs and *for* the countries concerned, emphasizing the skills of interpersonal communication and using indigenous resources, would be a long-term solution to the chronic lack of trained people. The program now exists and is known as the UNICEF regional training program, "Communications for Social Development."

UNICEF Focus on Communications

For the past eight years UNICEF has progressively increased its funding support for the communications components of government programs. Beginning on an *ad hoc* basis with support to ministries producing support media, the emphasis has veered towards training in interpersonal communication techniques and simple media at the field level.

UNICEF's decision to move away from the more tangible and glamorous media ventures towards a pyramid of trainers and seminars was made on the basis of experiment and evaluation—and in response to increasing demand from the governments concerned.

During the mid-70's, when the Project Support Communication service in the Eastern Africa region of UNICEF was still deeply involved with the "curative" media interventions, a series of training programs was conducted to meet the specific needs of our programs. As the years slid by, the demand for training courses slowly built up.

The PSC unit's first course ran for two weeks in 1974 in Lusaka, and centered upon the communications needs of the squatter settlement upgrading program. A course was organized in 1976 for the northern countries of Eastern Africa, again for two weeks, but this time in Arusha, Tanzania.

In this issue . . .

Communications and Training in the Field 1
New Development Communication Logos 3
Folk Poetry Updated 4
Slow-Scan Pictures by Phone 5
Training: Rural Development Program Features Media 6
On file at ERIC 7
Communicator's Checklist 8
Multi-Media Literacy Campaign in Venezuela 12
Consider Microfiche 15
Dilemmas in Country X 16

A publication of the Clearinghouse on Development Communication
Supported by the Development Support Bureau of the U.S. Agency for International Development

(continued from page 1)

Training formalized

It was only in 1978 that an attempt to formalize the training was made. During the Arusha workshop, Donald Bogue of the Center for Family Studies in Chicago suggested that we pool resources and plan for a series of training courses in Africa. The first of these was held in Nairobi for nine weeks during early 1978. A follow-up to this course was held in Zomba, Malawi, during 1979 for four weeks.

Evaluations of these courses by the participants, mostly middle-level managers from government ministries, and reactions from their supervisors in the following years, led us to seek a lasting format for such courses. Many consultations with our collaborators in UNESCO (United Nations Educational, Scientific and Cultural Organization), IPPF (International Planned Parenthood Federation), and governments in the region led us to certain conclusions.

The mandate of UNICEF spells out our dedication to the betterment of the lives of mothers and children, but the logic of building a generalized project to train extension officers in all fields was difficult for our organization to accept. Although we feel that the training will eventually benefit all sectors of government, it will initially be directed toward field officers working in health, water supply, nutrition, and community development. Other sectors which impinge more upon agriculture and industry have a direct bearing upon the welfare of mothers and children over the longer term, and will be included eventually in the training activities.

The strategy

If anything had been learned from the years of "curative" media and training interventions by PSC into UNICEF-assisted programs, it was that at best such programs were only transitory and at worst they took so long to get into the field that little was achieved. Certainly replicability was not the buzzword of the day. A cadre of communications programmers was needed within the countries. People with media skills were always present, but their availability to the programs and the interventions which they supported were often severely limited in scope. Such institutions here in East Africa are usually quite well established, though they lack experienced staff, operational funds, and outreach capability in general. The training of such staff is not too great a problem; they number only in the hundreds for the whole of Africa.

But what about the man or woman who is already in the field? The studies on the effectiveness of the extension workers have shown that their contact with the population is close to nil. Yet extension workers are a body numbering tens of thousands who should be the greatest force for development after the people themselves. They are not being used and they must be converted into a positive asset if any significant changes in the developing countries are to be expected.

The tactics

The training strategy developed by UNICEF PSC is based upon experiences over the past six years. While it is not new, we think it is exciting. It involves a simple pyramid of resources, with trainers being trained at participating institutions throughout the region. The training centers usually serve three or four neighboring countries. Trainers return from these courses to their home countries to begin training others at two levels—inservice and preservice.

In establishing the program, regional consultations were held for trainees with principals and lecturers at government colleges. Designing the workshops posed a difficult task, as the program designers felt that any curriculum presented to the extension agents should be based as far as possible upon a relevant experiential, cultural, and practical base. In short, each country would have to be responsible for producing its own materials, working from general "modules" published at a central location—the tip of the training pyramid—and then adding local case studies and translating as necessary into the local languages. It was the two-stage development of the curriculum which, it was hoped, would lead to more relevant, effective, and stimulating courses of study. At last it might be possible to produce a program which reflected the priorities and concerns of each African community, rather than being a rehash of tired Western values.

The central resource unit

The resource center at the tip of the pyramid was conceived not as a command post but as the logical way to provide support services at a reasonable cost. These services, it seemed to us, involved providing core curricula, resource materials, and administrative and financial advice. The focal point of the pyramid would continue to serve the needs of the institutions in the participating countries, collecting experiences and suggestions, and sharing materials and resources which might seem pertinent to the other participants.

The Institute of Adult Studies (IAS) at the University of Nairobi has been selected to be this focal point. It is being supported by UNICEF for a period of three and a half years with an international coordinator, secretarial assistance, a local counterpart, equipment, and funds for the production and distribution of core materials.

Participating institutions, such as the Institute of Development Studies in Lesotho and Botswana, the Educational Mass Media Center in Ethiopia, and the Center for Applied Social Sciences in Zimbabwe, have assisted with the specifications and design of the project. They will be supported by the project to conduct the initial training courses for trainers. The countries themselves will be given funds to run a small number of courses at the field level for extension agents. In charge of these in-country courses will be a national coordinator trained at a special course by the IAS in Nairobi.

Funding

The actual size of the UNICEF involvement is minute when viewed in the context of the objectives it sets for itself. It is hoped that UNICEF will fund the program through 1984, at a cost of $600,000. But the project must not stop there. If it serves as vital a need as we believe, and gets the job of training done efficiently and effectively, then government funds should continue to flow after the UNICEF aid tapers off.

The program addresses itself to a fundamental need, willingly stated by the representatives of the participating countries, but a need which is usually relegated to a low priority due to its magnitude, the expense of conventional training, and its cross-sectoral nature. The aim of the UNICEF intervention is therefore threefold. First, it must demonstrate that an economically viable training scheme can reach down to field level. Second, it must show how a lasting system of training can be built upon local resources with only minimal external support. Third, to insure that the program continues after the end of UNICEF funding, it must make clear the economic benefits accruing from a better-trained and more effective extension field force. In years to come, when the budgets of governments are sure to become tighter and tighter, the competition for funds will intensify, and only those programs demonstrating real benefits will get an adequate share.

(continued on page 14)

How Readers Can Further the CDC Network

- Send us information about your projects—your experiences are valuable to your counterparts in other countries.
- Send us regular copies of your publications, papers, and reports. These help strengthen the development communication network worldwide, and they will be useful to visitors who use the Clearinghouse collection when planning development projects.
- Write articles for publication in *DCR*.
- If you are in Washington, visit and use the Clearinghouse. Such visits help us to stay in touch with what is happening in the field.

Introducing. . . International Development Communication Logos

With this issue, *Development Communication Report* inaugurates the set of logos recently created for the Clearinghouse on Development Communication by Washington designer Timothy Bradford Ward. We invite the international development community to adopt these symbols for its own graphics needs.

The new symbols will appear in each issue of *DCR* to make it easier for readers to scan the newsletter to get an idea of the content of the articles. We have chosen to have logos to illustrate the main developmental sectors which we cover in the newsletter, and have designed logos to represent certain media as well. While it is clearly impossible to have symbols for every area, we may in the future create additional ones as the need arises.

Logos, visual symbols representing ideas or concepts, jump out from a page. They make a statement and introduce a topic graphically, a kind of visual shorthand. Logos not only enliven a page of text, but they can guide readers quickly to subjects of special interest to them.

Readers of *DCR* who visit the Clearinghouse collection in Washington, D.C., will recognize the symbols on the library shelves, where we will be using them to designate books by subject and sector. With the new symbols, visitors will be able to locate materials easily in their particular areas of interest. We will also be using the logos in appropriate Clearinghouse publications, such as the new collections of *Project Profiles* to be published soon.

Agriculture

Audiocassette

Cinema and Motion Picture

Education and Human Resources

Filmstrips and 35mm

Folk Media

Health

Information

Integrated Development

Interpersonal Communication

New Technologies

Nutrition

Population and Family Planning

Print Media

Radio

Satellite

TV/VTR

Women In Development

The challenge for the designer was to create clear visual statements for all these categories. The designs had to be simple enough to look well when reduced to the size used here. They had to be equally applicable to all countries and all cultures, and had to have a common format so they would complement each other when used together. Some of the final designs are pictorially representative, such as the Health logo, while others, such as the New Technologies logo, are more abstract, suggesting an idea or a theme rather than an object.

DCR and the Clearinghouse will welcome reactions and comments from readers about the new logos and their intended use in the newsletter. The Clearinghouse and the designer invite readers to use the logos freely. If readers feel these symbols would be useful in their own publications or in other visual materials, we are glad to make them available. We do request that users notify the editor of *DCR*, and if possible send us a copy of the publication where the logos appear.

Folk Poetry in Bangladesh: Updating Traditional Forms To Carry Timely Messages

by Rati Ranjan Roy

Development communication is a process of exhange. It is a process of motivation and confidence building, of stimulating creativity and self-expression, of sharing information, ideas, and experience to be translated into actions leading to socioeconomic and cultural development. Many factors, such as community attitudes, norms, and values on the one hand, and media attitudes on the other, greatly influence the communication process. For instance, a message is not accepted by a particular audience if it contradicts the value-system of the recipients. At the village level, appropriate media aids such as posters, cut-outs, and folk poetry have a vital role to play in the communication process. This article will discuss the role and impact of folk media, especially folk poetry, as a communication aid for social change.

Bangladesh culture, like all cultures, has its own folk traditions to communicate messages. Folk media have been popular since ancient times, and include poetry, songs, drama, music, proverbs, and stories, all of which have been used in different times for different purposes. During the British Colonial period, folk media were used to strengthen and establish colonial power. Later, folk media were used to organize the Indian people against colonial power. In all ages, the folk tradition was found to be an effective way to communicate specific messages. However, many of the folk poems had little relevance to the lives of the very poor rural people, for few poems reflected the low status and condition of the downtrodden classes. The poems were mainly political or recreational, not didactic.

New Folk Poems Created

However, recently folk media in the form of poems have been created and used in different areas of Bangladesh as training and communication aids, successfully supporting many development efforts. One of the major advantages of these poems is that they have always been highly accepted in the community. The rhyme and rhythm of these newly created folk poems are traditional, but their content and purposes are put to new uses. Another advantage of the poems is that folk media are appropriate for gatherings of any size. Folk media involve the audience emotionally and intellectually as well as physically. The audience can easily add their voices to the recitation of folk poetry or take part in the drama. Again, the poetry is composed and designed so that it imitates the literature of rural people themselves. Thus, it speaks of their own needs, problems, and resources. The contents, humour, and satire are very easily understood, and appeal to the audience. It is found that once such poetry is introduced to any community, it becomes so popular that people begin to recreate it by themselves in different group situations, such as in their working situation in the field, during leisure time, etc.

One of the other important advantages of using folk media as a development tool is that the community people themselves have their own resource persons to compose and recite the poetry. And once these aids are used in any community, that begins a process by which the message spreads throughout the community by word of mouth.

But the effectiveness of folk poetry, like the effectiveness of any media message, depends primarily on how well the poems are designed. There are a variety of ways to design and use these poems, and they vary with the situation, the purpose, and the audience.

Subjective and Objective

Designs may be either subjective or objective. Subjective poems mirror the reality of the audience, and may cover a wide range of subjects such as success or failure, health and sanitation, existing agricultural conditions, and available community resources. Thus the poem describes the existing socioeconomic and cultural conditions of the audience. Subjective poetry is very effective for motivating, building confidence, and raising the self-image of the target group. It also starts a dialogue in the community, encouraging people to analyse their own conditions, compare their conditions with others, and seek solutions.

In the case of objective poetry, poems are based on general situations unfamiliar to the villagers. They may be drawn from the experiences, real or imaginary, of the writer, or from information collected from a variety of cases. They are mainly used to represent *others'* situations, success, and experiences to the audience. These are an effective way of giving options to a group on the basis of which the people can decide about their own situation. But whether the medium is subjective or objective, it has a far-reaching effect, and the messages it carries spread from community to community and village to village.

The contemporary folk poetry being written with development information or messages in Bangladesh takes four different forms: folk poems, folk songs, drama, and rhythmic stories. These differ more in terms of process than in content.

Growing Use of Folk Poetry

Whatever forms folk poetry takes, it constitutes a part of the literature, and literature has a great influence on people. As folk poetry is easily understood and is spoken in the languages of the rural people, it can give audiences tremendous incentive to change their attitudes, values, and practices. In Bangladesh, the uses of folk poetry in development communication are becoming increasingly popular both in voluntary and in government programs. At the government level, folk poetry is being used on a large scale for the self-reliance movement, for the literacy campaign, and for family planning programs. At the same time, voluntary organizations are increasing their use of folk poetry to provide messages to the community aimed at increasing motivation, raising awareness, building up confidence, and encouraging upward mobility. The effectiveness of the medium is indicated by the popular acceptance of the new folk poetry, and its increasing use as a communication aid by development communicators. ■

Rati Ranjan Roy is the Coordinator of the Information Service, Village Education Resource Center, in Anandapur, Bangladesh.

Poster Offered

The Clearinghouse on Development Communication is making available to readers of *DCR* an attractive wall poster.

The poster was created to illustrate one of the main ideas of development communication—that radio can lessen isolation and encourage economic development for the rural poor. Symbolizing radio's reach to remote parts of the world, the poster shows a small village isolated among the clouds. The text consists of short descriptive illustrations in English, Spanish, French, and Arabic, making the poster appropriate for many international settings.

The colored poster is available free to subscribers of *DCR* in developing countries. Others wishing to obtain the poster should send U.S. $3.00 to cover mailing and handling costs. Please send requests to: Poster, Clearinghouse on Development Communication, 1414 22nd Street N.W., Washington, D.C. 200037 USA.

Slow-Scan: Long-Distance Pictures By Phone

by Patricia Nettles

One of the technologies emerging to serve developing areas is slow-scan television, a technique that makes picture communication possible over inexpensive audio channels such as the telephone. Slow-scan also works with satellite, FM radio, and microwave channels. Appropriate applications of slow-scan technology include telemedicine, teaching, and conferencing—in short, any communication that may benefit from or require the use of still pictures. A look at some current applications will show the advantages and limitations of slow-scan TV.

The basic technology is simple in theory. Since a TV picture is a grid of lines composed of points, and each point has a voltage representing its brightness, engineers designed a means to pull the picture apart and identify each point by its position and value. This can reduce the complex "wideband" TV signal to a fraction of its normal size, allowing it to fit audio channels. At the place where the signal is received, a "memory" unit puts the picture together again. It is rather like cutting a piece of paper into numbered strips and passing them through a keyhole for reconstruction and viewing on the other side.

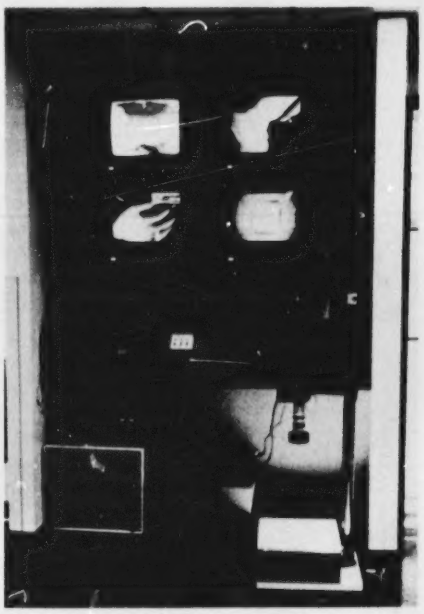
Transmission time for a single image varies from 4 to 78 seconds (compared to 25 or 30 pictures per second for normal TV), depending on the channel used and the detail required in the picture. Greater detail needs to be sent at high resolution, which takes longer to process.

Communicating visually requires a few basic skills, such as focusing a camera, reading instructions, and dialing a telephone. More than that, however, it requires user acceptance. Even though some people are intimidated by technology, use of slow-scan increases where the system remains in place more than a year.

Advantages of slow-scan

There are obvious advantages to communicating visually across long distances. Pictures transcend barriers of syntax and vocabulary, lessening the chances of misunderstanding. Many kinds of information may best be shared in picture form; for instance, medical images—X-rays, EKGs, etc. Anything a TV camera can see is an appropriate subject for slow-scan communication, particularly charts, models, photographs, slides, microscopic images, or pictures of people and places.

Printed text can also be read via slow-scan, but special considerations must be observed, such as picture resolution and the size of the TV screen and the print. Because of the shape of a TV monitor, it is usually best to transmit a half page at a time. Slow-scan has been used by several federal libraries for "telebrowsing." A patron at one library may want an article that is part of another collection elsewhere. Slow-scan is used to search quickly through files and identify what is needed. A copy can then be sent by conventional or electronic mail.



Compact two-way slow-scan station at Sunnybrook Hospital, Toronto, Canada.

Slow-scan for health care

The first extensive use of slow-scan in a remote area was made by the Toronto Telemedicine Project, which began in 1978. Slow-scan technology helped to improve health care delivery to the 10,000 people living in northern Ontario's Sioux Lookout Zone, a rugged area of 100,000 square miles. The Zone has one hospital and is served by two teaching hospitals in Toronto: Sunnybrook and Sick Children's. After the installation of telephone service in the Zone made a slow-scan network possible, two-way systems were placed in the health stations at five of the larger villages and at the three hospitals. The service is still active and has been extended from diagnosis to training and human relations.

The Zone is a wilderness area accessible primarily by airplane. Patients were routinely flown to a hospital if their health care needs could not be met by the local nurse or aide. This procedure was risky, expensive, and stressful. The primary purpose of slow-scan was to extend diagnostic expertise and reduce the need for patient transfer. The secondary objective was to provide continuing medical education to the health station personnel in the villages and upgrade the training of those doctors and nurses scheduled to work in the Zone. Both of these goals have been met satisfactorily. Picture transfer has helped reduce the cost and risk of patient travel. Continuing education now includes patient training. One woman, for example, needed several months of physical therapy, yet longed to go home to her family. The therapist used the slow-scan to record picture/sound instructions on an audio cassette so the woman's family and her nurse at home could continue her treatments, using the slow-scan facilities in her village to play back the instructions.

One of the disadvantages of slow-scan is the necessity of an existing audio link to carry the images. Another is the dependence on the quality of that link. In Wisconsin, where the 600 residents of Washington Island get their health care from a nurse and a slow-scan phone link to a mainland clinic, storms interfere with audio reception occasionally, cutting the contact. The line itself must meet certain quality standards to keep a "clean" picture. However, there is flexibility in the type of channel that can be used.

Slow-scan in the Pacific

At the University of the South Pacific at Suva, Fiji, the ATS-1 satellite has made a network of communications possible (USPNET) since 1972, and slow-scan was recently added to that network. USPNET extends the University from Fiji to other islands throughout the Pacific, and the increased demand has led to upgraded and expanded communications. Radio, video, computer, and slow-scan terminals were initiated in 1978. Now satellite tutorials serve the region regularly, offering courses that include agriculture, accounting, politics, English, and mathematics. Inservice training, consultations, and administrative conferences are also held through the satellite program. Slow-scan TV terminals in Tonga, Fiji, and Western Samoa transmit pictures on the satellite's audio channel at a scan rate of approximately 40 seconds per medium resolution picture, 80 seconds for high resolution.

(continued on page 12)

There is so much to learn about the use of information to aid economic and social development, and so little margin for error or waste in the developing countries, that it is both moral and prudent to share what is found out.

—Wilbur Schramm

New to Note

Readers who are involved in educational activities should look into UNESCO's International Bureau of Education's "Ibedata" publications. Among these is a *Terminology of Technical and Vocational Education/Terminologie de l'enseignement technique et professionnel.* A most useful English-French-English glossary of both general and specific (training) terms relating to education, this small (88 pp) volume gives a concise definition of each term and includes its bilingual counterpart.

Although the terms are chosen and defined with an emphasis on the perceptions of Western education systems, the careful breakdown of terms into such categories as "Terms relating to systems and structures of education," "Terms relating to training," or "Terms relating to employment," clearly makes this publication a valuable addition to the growing body of information that aims to ensure consistency of meaning in professional communication.

Directories are always welcome, and Ibedata's *Directory of Educational Research Institutions/Repertoire des institutions de recherche en education/Repertorio de Instituciones de Investigaciones Educacionales* will fill many a research and reference need. Compiled from answers to a UNESCO questionnaire, the information lists kinds and objectives of educational research, staff size, publications, etc. As the compilers note, arbitrary decisions had to be made with regard to the concept of research, areas of discipline, and choice, so as not to weight the *Directory* too heavily toward those nations with a multitude of research institutions. The purpose of this—as of any good international directory—is to put people of similar interests and needs in touch with one another.

In a final note, the International Bureau of Education is to be commended for having designed a particularly handsome format and cover for this series!

In the U.S., the Terminology *is available for U.S. $4, and the* Directory *for U.S. $12.50 from Unipub, 345 Park Ave. South, New York, NY 10010; others may apply to national distributors of UNESCO publications or to Commercial Services, UNESCO, 7 Place de Fontenoy, 75700 Paris, France.*

Reviewed by Judy Brace

VTR Leads Variety of Media Techniques Used In Tanzanian Training for Rural Development

by William Le Clere

In many Western countries the use of media in support of training has been accepted practice for a decade or more, but, for a variety of reasons, the matching of media and training has been less common in developing countries. In the past two years, training staff on the Training for Rural Development Project—Tanzania, has introduced a mixture of media techniques in support of a variety of training and adult education efforts in four regions in that East African country.

From the beginning of the project in late 1979, experimentation with media-support of training was part of the project design. One part of the project strategy has been to introduce Tanzanian trainers to a variety of media techniques, and to encourage them to decide which are appropriate and how to apply them in rural development programs. It is helpful to have a brief overview of the project before looking at the results of specific applications of video technology.

Training for Rural Development—Tanzania

The Training for Rural Development Project is funded by the United States Agency for International Development (USAID)/Tanzania. It was designed and requested by the Tanzanian Ministry of Agriculture, the Ministry of Manpower Development, and the Prime Minister's Office in cooperation with USAID and USDA (United States Department of Agriculture). The overall goal is to use training as a major tool to improve the quality of life for rural Tanzanians, who comprise more than 90 percent of the country's population. The training project is in the context of several other major social and governmental change programs, all designed to help achieve the same overall goal. American staff include Janet Poley, USDA/USAID Project Advisor; Frank Fender, USDA Agricultural Economist; Kathleen Alison, USDA Audiovisual Specialist.

Adult education methods, as defined by Malcolm Knowles and others, and media support are the principal training technologies being introduced. Training content includes community organizing and development, project management, increased agricultural production, home economics, livestock breeding, and general community health. The project is designed to begin at the village level with continuing cycles of needs assessment. Training based on assessment continues both in the villages and in residential training centers located in the regions. In the next phase of the project, needs assessment, training, re-assessment and continued training will work its way up the system to the district, regional, and eventually national levels.

As of this writing, training has begun in sixteen villages, four in each of the four pilot regions, and needs assessment is underway in the districts and regions which affect these villages. Ten Tanzanian trainers were trained in adult education methods and project management in 1980, and twenty-four more Tanzanians are being trained in 1981. Another 60 Tanzanian trainers are in formal degree programs across the U.S. The Tanzanian training teams are all experienced in village work, and have had previous formal training and experience in the content areas in which they will train.

In the project to date, there have been four different training situations where some form of media have been used in support of training: training of trainers, village training, residential training, and orientation and outreach.

Training of Trainers

By design, two of the first ten Tanzanian trainers were already experienced in some media applications. Specifically, both were trained as commercial artists, but both also had good mechanical aptitude. This first Tanzanian team was given three months of intensive training in the U.S. in adult education methods and project management, and the two media specialists went through 90 percent of that training with their colleagues. In the other 10 percent of their time in the U.S., the media specialists were trained in the operation and basic maintenance of VTR (video-playback) systems, audiotape units, overheads, and movie projector. They learned uses of slidetapes, photography, and simple flipchart pictorial presentations.

During the training of the full Tanzanian team, the American trainers used video-playback extensively, so that all of the team had some exposure to that technique. All practice training presentations were videotaped and played back to help the trainers see and hear themselves trying out new methods and techniques. The other trainers also used their media specialist colleagues to help prepare visual aid flipcharts used during their practice training.

During the training of the second, larger Tanzanian team, similar techniques were used. In addition, a stop-action videotape was used in training trainers to choose which interventions to use when confronted by a

particular situation in a training group. In this exercise, the taped presentation began by showing several problems in getting a workshop started. At the point where the trainers on film had to make an intervention decision, the tape stopped, and the leader asked what the observer would do in this situation. Tanzanian trainers then discussed and explored various options, trying out a few which were also videotaped. The program resumed and the videotape showed three different interventions which could have been appropriate for that situation. Tanzanian trainers then critiqued their own and the programmed interventions. The plot on tape thickened, situations becoming increasingly complex, and trainers had to demonstrate increased skill and creativity in risking interventions.

By the conclusion of intensive trainer training, at the very least, the uses and applications of videotape media and mixtures with other media had been de-mystified, and most trainers reported they were anxious to find ways to experiment with the new media back in Tanzania.

Village Training Design

After the trainers conducted a needs assessment in each village, the team designed approximately two weeks of training tailored to that village's needs. The first training events were focused on the village council, since that is the local governing unit in the village, but training was not necessarily limited to council members. The size of the average training group was about 28 villagers. Since all were also farmers, homemakers, or shopkeepers, the training day was typically three hours long, scheduled at the convenience of the villagers. Swahili is the national language of Tanzania and all the village training is done in Swahili. However, although Tanzania has made tremendous progress toward universal literacy, some council members, including some of the oldest and most respected, did not read Swahili well. As a consequence, the first use of media support the trainers designed was a pictorial presentation of the four main goals of the training. They presented the goals orally, pictorially, and in written Swahili. This opening training sequence accomplished several complementary ends:

- it heightened understanding of all villagers participating
- it showed respect for the many who could read written Swahili
- it facilitated oral questions and answers between trainers and villagers
- it protected the dignity of those who could not read, encouraging their continued participation in the training.

In the 16 villages in which training has begun, there has been little to no observable drop-out among villagers. On the contrary,

(continued on page 14)

On File at ERIC

The use of educational technology, teacher training programs, and curriculum change are the focus of reports reviewed in this column. All are available in microfiche from the ERIC Document Reproduction Service (EDRS), P.O. Box 190, Arlington, Virginia 22210, USA. Most of them are also available in paper copy.

- McAnany, Emile G. ***Success or Failure of Communication Technology in the Third World: By What Criteria Shall We Judge?*** Paper prepared for the conference on Economic Analysis for Educational Technology Decisions, Dijon, France, June 19-23, 1978, 23 pp. (ED 192 713)

The successful application of communications or educational technology in developing nations is dependent upon a favorable mix of planning factors in the context of local settings, according to McAnany. He advocates the adoption of planning strategies to search for those contexts that promise the best results from a rationally planned application of technology, thereby avoiding the planner's often irrational hope that technology can overcome the major social problems faced by a society rather than serving as a useful tool for societies that have already attacked these problems. An examination of recent technology projects in developing nations yields several internal and external factors that seem to be the most likely to affect project success: (a) criteria for successes are based on an implicit or explicit set of values; (b) judgement has been too restricted to internal efficiency standards in the past; (c) contextual factors have largely been ignored; (d) equity as a criterion for success imposes its own criteria; and (e) a mix of contextual and planning factors is required. A bibliography of 27 references is provided. Available from EDRS in microfiche for 91¢ or in paper copy for $2.00 plus postage.

- ***International Conference on Teaching-Learning Process in Universities. A Fresh Look into the Teaching-Learning Process and Use of Educational Technology in Universities with Special Reference to ASEAN Countries.*** Penang, Malaysia: University of Science, 1979, 264 pp. (ED 192 631)

This document provides background information for a conference held in Penang in June 1979, as well as transcripts of the opening and closing sessions, papers presented, a conference program, summary of discussions, findings and recommendations, and lists of committees and participants. The papers are divided into four sections: (a) goals and objectives of university education in developing countries, and specifically Asia; (b) characteristics and learning problems of college students in Malaysia, Indonesia, Singapore, the Philippines, and Thailand; (c) instructional problems and methods of overcoming them (includes several case studies); and (d) supportive infrastructure, academic staff training, and the use of educational technology for developing effective teaching-learning methods. Available from EDRS in microfiche for 91¢ or in paper copy of $18.50 plus postage.

- ***Policy Studies in Asia—the Training of Educational Personnel: India, Nepal, Pakistan, Philippines, Thailand.*** Bangkok, Thailand: United Nations Educational, Scientific, and Cultural Organization, Regional Office for Education in Asia and Oceania, 1979, 102 pp. (ED 191 798)

Five study papers by educators from India, Nepal, Pakistan, the Philippines, and Thailand discuss the educational programs in their countries with special reference to policies and strategies in the implementation of universal education, current policies and strategies in the preparation of teachers, and recommendations for the preparation of teachers for the universalization of education. Programs described are both formal courses in central universities and nonformal strategies, including correspondence-cum-contact, radio, self-instructional materials followed by a contact session, and inservice courses or short courses at training centers in remote areas. This collection of papers is introduced by an overview which provides a synoptic view of the similarities and differences in policies and strategies in the five countries. Available from EDRS in microfiche for 91¢ plus postage; paper copy is available from UNIPUB, Box 433, Murray Hill Station, New York, New York 10016, USA.

- Shaker, Paul. ***Curriculum Change in the Developing Country: The Case of Saudi Arabia.*** Paper presented at the annual meeting of the American Educational Research Association, Boston, Massachusetts, April 7-11, 1980, 19 pp. (ED 191 139)

In this paper based on current thought in multicultural education, Shaker discusses the need for Americans to help Saudi Arabia integrate Western technology into education without subjecting the country to cultural imperialism, and cites four curriculum development efforts in Saudi Arabia. These projects were concerned with vocational education, computer-assisted instruction, intermediate reading materials, and political and social life. Shaker sees a valid multicultural road to educational development that can benefit all parties concerned and denigrate none of them. Available from EDRS in microfiche for 91¢ or in paper copy for $2.00 plus postage.

Barbara B. Minor, Publications Coordinator, ERIC Clearinghouse on Information Resources, School of Education, Syracuse University, Syracuse, New York 13210, USA

A Communicator's Checklist

1 *Economics of New Educational Media,* Vol. 1: *Educational Methods and Techniques* (1977) and Vol. 2: *Cost and Effectiveness* (1980). (Paris: UNESCO)

UNESCO has been at the forefront of the movement to explore ways in which new instructional technologies can be used to assist the educational systems of developing societies to expand rapidly, maintain and upgrade quality, and stay within available resource constraints. These two volumes are the product of three conferences that were held on the economics of these technologies, the first in 1975 and the follow-up conferences in 1977 and 1978. As such, they reflect a serious effort to address comprehensively a burgeoning number of economic evaluations of instructional technologies and to standardize the terminology, conceptual framework, and measurements to make cost-effectiveness comparisons of instructional technologies comparable across countries and applications.

The importance of the two publications is enhanced by the present dearth of literature on evaluation methodologies in the economics of instructional technologies. With the exception of the work of Dean Jamison, Steve Klees, and Stuart Wells, there has been little attempt to generalize the methodological tools and apply them to instructional television, radio, distance learning, and computer-assisted approaches in a large number of diverse settings. These volumes contain both methodological discussions and specific case studies that increase substantially the materials available to economists, planners, policy-makers, and educators.

Volume 1 contains two short methodological studies by J. C. Eicher and F. Orivel on cost analyses of educational technologies as well as a directory of pertinent institutions and experts, an extensive bibliography, abstracts of studies, and selected case studies on instructional radio and television and other applications. There is also a set of conclusions of international experts who participated in the 1975 meeting on establishing an information exchange on technical and economic studies related to educational technology, and there is a glossary of technical and economic terms.

Volume 2 contains seven papers on various methodological issues and applications with respect to cost-effectiveness analysis of instructional technologies as well as five case studies. These are followed by shorter discussions and abstracts as well as summary reports of the 1977 and 1978 meetings. Space limitations prevent a detailed discussion of each contribution, but it is possible to provide an overview of both the strengths and weaknesses of the two volumes.

All conference publications are vulnerable to a certain amount of disorganization, and these did not escape that fate. Without the resolute hand of a determined editor, there is no coordinated and articulated design, and the papers do not seem to have benefitted from an editorial review that would have improved the presentations, corrected errors of fact and interpretation, and minimized overlap among them. On the other side of the ledger, the diversity of the subjects and presentations is impressive, and certainly cannot be found in any other single source.

A list of specific strengths would be substantial. In addition to the diversity, there is a useful balance between conceptual issues and case studies. The conference discussions are extremely informative, and the authors represent a "who's who" in the field. These include such notables as Eicher, Orivel, Jamison, Klees, Wells, Tuckman, McAnany, and Wagner. Most impressive is the fact that the presentations are hardly one-sided as is the bulk of published work on instructional technologies. The tendencies for previous literature to seriously understate costs and overstate effects are discussed with great candor in many of the papers and in the conference discussions.

Weaknesses include lack of cohesion, repetition, and a remarkably poor translation. I was unable to obtain the French edition, but it appears that many of the translations were too literal. For example, on page 24 of Volume 1 we are told that "there are two very cogent reasons for making shift with a cost-benefit analysis . . ." (Of course, we should not blame the translators in the event that the original material was lacking.)

More serious are occasional errors of fact or interpretation. For example, Eicher states in Volume 1 (p. 19) that charging a rate of interest on the undepreciated capital cost is unnecessary because we are only comparing the relative costs and effects of different alternatives. Therefore, he argues that in eliminating the interest calculation, we will not bias the comparison. Of course, this is certainly incorrect when different alternatives are characterized by different relative intensities of capital. Unfortunately, this error is repeated by Orivel in Volume 2 (p. 24).

While such errors are hardly formidable, the economic glossary seems to have been deliberately sabotaged. Otherwise, how can one explain the fact that almost every entry is either obfuscated, misleading, or absolutely incorrect? For example, we are told that *present value* is "cost measured in current monetary units;" and *discount* is an "operation consisting of reducing the apparent value of a future receipt or payment by a certain percentage in order to take account of foreseeable depreciation." Other entries are equally inventive or illusory.

These two volumes are important. They should be standard library contents for those planners, economists, and educators who must evaluate or interpret evaluations of educational technologies. They are an important reference work, although the non-expert should be certain to rely upon other sources and on other expertise before acting on the findings and recommendations. By all means, do not refer to the glossary. ■

Reviewed by Henry M. Levin, Director of the Institute for Research on Educational Finance and Governance, School of Education, Stanford University.

2 *The Primary Health Worker. Working Guide, Guidelines For Training, Guidelines For Adaptation,* Revised edition. (Geneva, World Health Organization, 1980), 346 pp. In English; illustrated. (French edition in preparation.)

Since the World Health Organization (WHO) adopted the goal "Health for all by the year 2000" at its 1978 Alma-Ata conference, debate has raged about whether or not it is possible for the member nations to provide health coverage to their entire populations. At present, few even attempt to do so; the enormity of the task facing some less-developed countries is overwhelming. It seems appropriate, therefore, that WHO present some practical guidelines about how the goal can be reached, given the extreme economic and technological limitations with which some governments struggle. *The Primary Health Worker* (revised edition, WHO, 1980) serves exactly that function.

The health problems faced by most of the world are not mysterious and do not require high-technology solutions. Ignorance, superstition, inadequate water supplies, poor sanitation, and malnutrition allow communicable diseases to take an enormous health toll in less-developed countries, especially among the two most vulnerable groups: women and children. The unavailability of even minimal curative services means that minor problems can deteriorate into major disabilities or sometimes death. In *The Primary Health Worker* WHO outlines in detail how a barely educated villager can attack 34 common priority health problems to dramatically improve his or her community's health. In addi-

tion, the book gives practical suggestions about how to train a villager for this role, stressing throughout that both content and teaching methods must be adapted to meet *local* needs. The final section of the book, aimed at health planners, contains guidelines for making the necessary adaptations.

This extremely valuable book has evolved from a 1974 WHO working document which was field tested, revised, and published as an "experimental edition" in 1977. Further testing and revisions have led to the current volume. Those who have worked with the earlier versions (myself included) can attest to its practicality and usefulness. It is written in a clear, simple style, well organized, and illustrated with easily intelligible drawings. After appropriate adaptation and translation, The "Working Guide" (the bulk of the book) can serve as a textbook for primary health worker training and as a reference book for use in the field. The authors' admonitions about adaptation must be heeded, however; the guide can only be used after investing considerable time and talent to modify the content according to local needs and conditions. The guide in its present form is intended for those planning and implementing a primary health care program. It should save them a great deal of work as they prepare their own country's manual for primary health workers. ■

Available from WHO, Distribution and Sales Service, 1211 Geneva 27, Switzerland; or from local WHO sales agents or booksellers. Cost Sw.fr.12. Special terms available for developing countries.

Reviewed by Susan Colgate, Ph.D., a nurse-midwife who has taught Maternal-Child Health at the University of Yaounde in Cameroon, and worked as a traveling public health nurse in Niger.

3 *Illustrations for Development*, McBean, G., Kaggwa, N., and Bugembe, J., editors. (Nairobi: Afrolit Society, 1980), 69 pp.

The question of visual communications for rural audiences has, in recent years, received growing attention from the international development communications community. The Ford Foundation recently completed a comprehensive review of population communications projects in which visual, non-verbal information was provided to rural audiences. The Population Reference Bureau is continuing the Foundation's work in the field and is in the process of editing material which will review 12 of the most significant population communications projects worldwide that have successfully used pictorial communications for illiterate and semi-literate audiences. AID recently published a critical review of the use of both *fotonovelas* and comic books in development communications, focusing on the particular perceptual patterns and needs of illiterate and semi-literate audiences, and PIACT (Program for the Introduction and Adaptation of Contraceptive Technology) of Mexico City continues both its research and development work in the field.

The work of these organizations indicates quite clearly and conclusively that: 1) audiences having no familiarity with information presented two-dimensionally have extreme difficulty understanding graphic images; 2) the closer such graphic images are to being exact representations of reality the better understood they are; 3) the photo without background is the most exact and least distracting, and therefore is the most easily understood; and 4) most attempts to represent reality with drawings fail with media-naive audiences; only the most graphically accurate are understood.

Against this background, the role of the artist in visual communications for rural, semi-literate audiences is still a limited one. Few artists—even with good training and professional guides—will be able to serve the perceptual needs of those populations who have little contact with graphic media. The artist's role, however, becomes increasingly important as the media-awareness of audiences grows.

Illustrations for Development represents an effort to educate the development communications artist in the ways of visual communications for rural, largely illiterate populations in media-scarce environments. It provides a discussion of the perceptual patterns of illiterates (and semi-literates), the types of graphic images that have worked in the past for these audiences, and recommendations for successful new graphic attempts. More important, it tells the artist how to draw better: it is a short course in social/commercial art. In addition, it outlines the steps that must be taken to insure relevant and appropriate communications: audience research, pretesting, and formative evaluation, and cites the role of the creative team—of which the artist is an integral part—in successful education programming.

The book succeeds best in situating the artist in the process of graphic, pictorial communications and in providing practical information on how to improve technical skills. It is therefore useful not only to the artist, but to the local project or program director responsible for the production of graphic material. Far too few such directors appreciate the necessity of an accurate appraisal of audience needs and perceptions.

The book, however, is less than successful in a number of areas. First, although it rightly and correctly identifies necessary steps in the communications process (i.e., audience research, pretesting, etc.), it tends to minimize the difficulty of these tasks. Pretesting, for example, involves more than informal question-and-answer sessions with prospective audiences. Pretesting is a rigorous discipline which implies strict methodologies and procedures. Without at least a modicum of such rigor, pretesting is often subjective, imprecise, and, at worst, misleading. Researching audience attitudes about the subject matter being presented is equally difficult.

Second, although the book stresses the need to draw better in order to reach illiterate audiences, it minimizes the essential point that anything less than excellent, exact pictorial representation is useless for audiences unfamiliar with graphic conventions. In many countries with largely rural, illiterate populations living in media-scarce environments, it has been suggested that it is better not to use drawings at all, since highly trained artists are simply not available.

Third, the book stresses the artist's need to know about all aspects of the subject matter to be presented and the audience to whom it is to be presented. This is a questionable premise. If a team approach is assumed, then it is up to the research and "creative" people to tell the artist exactly what to draw, according to the information they have about the knowledge, attitudes, practices, traditions, and *mores* of a given population. In such an efficient operation, the artist is an indispensable skilled technician who executes a given task with precision and accuracy. He/she need not be necessarily versed in social anthropology or perceptual psychology (although a conceptual familiarity with these subjects would, of course, be advantageous).

The book as a whole, then, represents an important effort to convey the issues and techniques of development communications to both artists and local development communicators. Yet, it may ask more of the artist than is either necessary or realistically possible. ■

Reviewed by Ronald Parlato, an independent consultant working in the fields of health, nutrition, and population communications.

Annual Conference

The 1981 Annual Conference of the International Institute of Communications (ICC) will take place September 7-10, 1981, in Strasbourg, France. To register, or to obtain further information, please write as soon as possible to: Brigitte Chaintreau, ICC Conference Registration, MIDEM Organization, 179 Avenue Victor Hugo, 75116 Paris, France.

4 ***Professional Development and Educational Technology,*** edited by Information Dynamics, Inc. (Washington: Association for Educational Communications & Technology, 1980), 168 pp.

In publishing the *Proceedings of the National Conference on Professional Development and Educational Technology,* the Association for Educational Communications and Technology (AECT) has performed a useful service to education and the educational technology field. The Conference, held in Washington, D.C., January 16-18, 1980, addressed the increased use of technology in educational settings and its impact on educators. It was sponsored by AECT and the Department of Education's Federal Interagency Committee on Education. The book is composed of 19 articles, representing papers presented at the Conference by a variety of persons well known in educational technology and well versed in its various aspects. The volume concludes with a list of Conference findings and recommendations.

To understand the Conference structure, the reader should realize, as part II of the Forword explains, that Day One was devoted to identifying problems, refining issues, and setting priorities. On Day Two, participants examined case studies and discussed possible solutions to the problems, and on Day Three they made recommendations for action. A problem here is that the articles appear not to be sequentially ordered by the days on which they were presented, and are not identified as to the theme to which they pertain. This is confusing and weakens what would otherwise be a logical flow.

Information contained in the articles will be of particular value to people seeking information on technology and its implications for professional development, to persons currently out of touch with developments in educational technology, and to those new to the field. Newcomers and persons interested in updating their knowledge will find the book offers a collection of brief, self-contained articles that describe the use of videodisc, computers, satellites, broadcast television, and other technologies which have been applied to learning activities. Readers seeking information on professional development will find that many articles raise issues regarding teacher training, certification, accreditation, and other points of interest for career planners. Possible solutions to some of these problems are suggested in the list of recommendations.

It is now over a year since the Conference was held, and some of the material in the book is out of date. For instance, the Introduction does not reflect current political reality. The then-U.S. Commissioner of Education notes that there should be a central, coordinating force to meet the information needs of the nation's schools and libraries. He suggests this coordination be the responsibility of the Office of Education and eventually of the "new" Department of Education. Events following the Conference have introduced a new administration to the United States, and have signaled a shift to decentralized educational authority—factors which have significantly altered approaches to education.

Current dictum would no doubt prescribe a bottom-up, rather than a top-down, approach to such educational initiatives, and would most likely be more conservative in nature. Also, during the past year substantial growth has taken place in the computer market, and a number of new companies have entered the videodisc market. Both events will have an impact on education in the near future, and readers wishing current information on these technologies will need to look elsewhere for greater depth on these subjects. In addition, technologies such as the Instructional Television Fixed Service (ITFS) and teletext/viewdata are not represented. Inclusion of information on ITFS would have been particularly timely since this educational microwave service is currently in jeopardy.

Subjects treated by Conference presentors generally fall into the themes of issues, case studies, and future needs, as required by the Conference format. They are uneven in style and content, and some are better suited to publication than others. For instance, a presentation on "Training and Development in the 1980's—In Perspective" is a series of facts and short quotations that are indicators of training needs, but the pieces do not serve well as an article. The presentor, Kevin O'Sullivan, is an excellent speaker, however, and his presentation was probably one of the best aural experiences of the Conference. On the other hand some of the more scholarly works, such as "Educational Database Systems and the Classroom Teacher" by Fred Roseneau, make excellent articles but may have been too detailed for audiences to digest at the Conference. Thus, the book does a service by making articles such as the latter available in print.

A serious problem with the publication is the quality of the final chapter which contains Conference findings and recommendations. Little attention seems to have been given to analyzing, synthesizing, or otherwise providing structured conclusions that could be of value to decision-makers. There is also a strong recommendation for more conferences, which appears self-serving. In general, problems with this chapter reflect problems with the volume as a whole. While much valuable information is included, and it is better published in its present form than not at all, some judicious editing could have produced a more professional and useful product. In line with this are the disappointing number of typographical, spelling, and other proofreading errors. "Principles" for "principals" is certainly out of place in an educational work. Acronyms are not identified and appendices are not appended. And, while amusing, such errors as the biggest "bank for the buck" are distracting.

Nevertheless, the book serves a purpose. Too often, conferences such as this fail to deliver a tangible product. That this one did, and that recommendations represent a consensus of participants' views is important. Valuable information is included in the papers, despite the fact that selective reading is necessary. The effort holds promise for better things to come in that it is an expansion and enhancement of its predecessor conference held in 1978 on "Teacher Training and Educational Technology." If further conferences are held as recommended, improvements can be expected in the next set of proceedings. In any case, the current volume is useful and deserves some attention. ■

Reviewed by Ann Erdman, an Educational Telecommunications Analyst with the U.S. Department of Education.

5 ***Inventaire de Matériels Didactiques Peu Couteux Produits en Afrique*** Bureau Régional de l'UNESCO pour l'Education en Afrique. (Dakar, Senegal, 1980), 104 pp. In French, illustrated with drawings and diagrams. Mimeographed.

In an effort to share innovative educational uses of local materials and appropriate technology in Africa, BREDA (Bureau Régional de l'UNESCO pour l'Education en Afrique) put together this *Inventaire de Matériels Didactiques Peu Couteux Produits en Afrique (Catalog of Low-Cost Teaching Materials Produced in Africa).* In this 1980 Catalog, the 1978 Preliminary Catalog has been expanded and formalized. More editions are planned, and readers are encouraged to react and contribute their own ideas for inclusion in future versions. Since reading this catalog definitely delights the mind and stimulates the imagination, new ideas are certain to come forth as a result.

African teachers, particularly of scientific and technical subjects, usually lack equipment and money to buy educational materials, and the situation is unlikely to change soon. Faced with this shortage, imaginative teachers all over the continent have put their minds, hands, and locally available materials together to produce teaching tools they need. This book catalogs a wonderful array of their creations and tells how to make most of them. The 80 items described range from home-made ink, paper, and bamboo fountain pens to complicated apparatus for scientific demonstrations: a solar still and an atmospheric pressure gauge, for example. The

materials used range from primitive (sand, pebbles, beeswax, tree branches) to modern (glue, plastic bags, copper wire, metal pipes) to rubbish (empty tins, discarded ballpoint pen shafts, bicycle spokes, old inner tubes). The teaching materials themselves are presented alphabetically and indexed according to the grade level at which they can be used. The construction materials are also indexed, and an annotated list of producing agencies includes addresses and names of contacts.

This is a most useful list, not just because of its contents, but because the marvelous variety of creative solutions to common problems will give any reader new ideas about how to produce teaching materials with whatever simple materials may be available. ■

Available from the Bureau Régional de l'UNESCO pour l'Education en Afrique, (BREDA), 12, Avenue Roume, B.P. 3311, Dakar, Senegal.

Reviewed by Susan Colgate

In View: Portapak Video

Readers who have a particular interest in the use of video for development may want to look into a simple and straightforward course in basic Portapak video skills that was developed by the Fantasy Factory Video, Ltd., for UNESCO's Division of Structures, Content, Methods, and Techniques of Education. It was designed as a distance learning course for small groups for whom English is a second language. The target audience includes production personnel (who could move through the course modules quickly) but the course would be particularly valuable for extension and community development workers who need instructional or motivational tools for the field.

With a trainer, manuals (trainer's and student's) divided into modules, and a 30-minute videotape to illustrate points along the way, the course will teach students such basics as loading the tape, connecting the camera and microphone, selecting the proper lighting, using the tripod, and caring for the lenses. Upon completion of the course, students are expected to be able to produce a useable tape.

An institution wishing to offer this course would need access to a Portapak with its accessories and a monitor. (The course is structured around the Sony Rover Portapak.) While a trainer without previous video experience can train him- or herself with the course materials, an experienced user as trainer would lessen group uncertainties and anxieties of an unfamiliar medium. Interested persons can receive cost and other information by writing to the Centre for Advanced TV Studies, 42 Theobald's Road, London WC1X 8NW, England.

Video from Australia

The Centre for Advanced TV Studies is also a useful resource for publications that deal with the technical and applied aspects of video and film. To supplement the Portapak Course, the reader may wish to obtain a 44-page manual on *Basic Video* developed by the Australian Film and Television School. The manual deals with the basic techniques of production, and includes helpful information on the various kinds of scripts (e.g. camera, narration, shooting), a checklist for interviews, and a review of the principles of editing. All of this is presented in simple sequence so as to guide the novice or jog the memory of the more experienced.

Films for Understanding

There is increasing interest in the developed world in turning the viewing of a documentary about the developing world into a useful and positive learning experience. In the past, too many films simply caused a reaction of hopelessness, or left the viewer baffled and uncomprehending. The process of consciousness-raising with a discussion leader, using carefully crafted films, is being promoted as an effective way to learn about and understand conditions in the Third World.

Raising Consciousness Through Film is a 53-page study from the Sociological Institute of the University of Utrecht. The Dutch government was interested in raising the perception of conditions of the Third World in Holland, as well as learning how attitudes toward the Third World could be changed. To explore this, university researchers took six social documentaries to various school, church, and political groups to see what kinds of discussions they evoked, how leaders should structure discussions, and what sorts of films best achieve a degree of consciousness-raising. The findings indicated that a film that presents a structured and limited number of viewpoints with which the audience can identify is most successful in achieving Freire's "generative moment," whereby "people begin to understand the social forces which determine their own social situation as a result of the discussion of examples elsewhere in the world."

Finding Films

Hand in hand with this study goes *Seeing and Perceiving: Films in a World of Change.* The authors, Neil Taylor and Robin Richardson, have attempted to put into a single booklet all the information one would need in Great Britain to find a film about a developing country (there are generous abstracts of 50 selected films); how to design a program around the film, screen it, perceive it, and discuss it. Although written for a British audience, there is much here that is universal, applicable or adaptable to any group wishing to use film to improve a social education process. ■

For information about these and other publications, contact the Centre for Advanced TV Studies, 42 Theobald's Road, London WC1X 8NW, England.

Reviewed by Judy Brace.

Netherlands Courses for Third World Journalists

In an effort to encourage a free and balanced flow of information in the world, the Netherlands is soon to start a training program for Third World journalists to be held both in Holland and in certain areas of the Third World. The purpose of the training is to further the professionalism of already-practicing newspaper journalists in developing nations. Training will focus on such issues as news-gathering capability, instruments of reporting, and selection of news items. The goal of the program is to promote a more efficient and effective flow of information to newspaper readers, and to give readers an enhanced understanding of the development processes in their societies.

The training program has been initiated by a number of newspapers and journalists' organizations in Holland. Radio Nederland Training Centre, which has long experience in the training of radio and television journalists from Third World countries, will be in charge of the 32-month project. Some 30 members of the press, mainly from the developing world, have been invited to advise on the course curriculum. Plans call for two 12-week courses in Holland plus three shorter courses in the Caribbean, in Latin America, and in either Africa or Asia.

The entire project is being financed by the Nederlands Minister for Development Cooperation. Further information about this training program can be obtained at the Netherlands' Embassies or directly from the Radio Nederland Training Centre, P.O. Box 222, Hilversum, Holland.

(continued from page 5)

Picture delay time is one of the factors inhibiting the use of slow-scan technology, partly because people are used to television being a medium of motion. However, most of the information we share is in a still mode. For the exchange of graphic data, or any image that might be suitable for a slide presentation, slow-scan is an appropriate medium. Discussion can continue while a picture is building. The person sending can prepare the sequence ahead of time, making sure each image is properly centered and focused before transmission. It is a simple matter to reposition the camera and focus on a detail, or send a different picture if asked.

Since the picture is received as a series of audible tones, it may be recorded on an audio cassette. File copy can be made by photographing the monitor or attaching a hard copy machine to the system.

Global scientific weather information—radar scans, for example—may arrive by slow-scan. The visual communication medium offers two-way political participation to residents of rural villages, overcoming geographic barriers. Slow-scan can keep an eye on volcanoes, or stormy mountain passes. It extends teachers to distant classrooms. It reports the status of gauges on drilling platforms to monitoring stations hundreds of miles away. Installed on ships, it allows visual contact with shore personnel.

Slow-scan technology is a viable means of long-distance picture communication, adaptable to rugged or urbanized environs, to sophisticated or common communications networks. Since it is unfamiliar to most people, it poses problems common to any new tool. In considering this technology's application to a given need, the decision whether or not to adopt slow-scan should be based on the importance of receiving immediate visual information. ■

For further information, contact Colorado Video, Inc., Box 928, Boulder, Colorado USA 80306.

Patricia Nettles is the Advertising Manager at Colorado Video, Inc., a manufacturer of slow-scan television systems.

Mobile Training Units: A Call for Information

The Resource Center of the Clearinghouse on Development Communication is receiving a growing number of requests for information about the use of mobile training units in developing countries. If you have, or know about, such a program using mobile units for training purposes, won't you send us documentation, or write to us, so that we can put others in contact with you?

Multi-Media Approach Highlights Venezuela's Literacy Campaign: A Progress Report

by Wilson Velandia B.

A recent issue of *Development Communication Report* (April, 1980, No. 30) was devoted to world illiteracy and to some attempts to provide effective literacy programs around the world. It is important here to summarize certain facts about illiteracy:

- Despite the declaration of education as a Human Right in 1948, millions of people, mostly in developing countries, will not have the opportunity to learn the fundamental skills of reading, writing, and basic arithmetic.
- While the *percentage* of adult illiterates in the world has declined, *the absolute number has increased.* It is estimated that in 1990, there will be about 884 million illiterates in the world, as compared with about 740 million in 1970.
- These estimates of the actual number of illiterates in the world are considered to be quite low, because they often apply only to people 15 years and older, and are usually based on the response to a single question ("Do you know how to read and write?") without any testing for accuracy.
- Low literacy rates correspond to such factors as a high rate of population growth, low calorie intake, low life expectancy, and low per capita income. (R. McNamara, Address to the Board of Governors, World Bank, 1979).
- Illiteracy rates are higher for women than for men, because educational opportunities often do not exist for women.

Illiteracy in Venezuela

Because of its many valuable natural resources, including its rich oil fields, Venezuela has an impressive economic growth rate. Per capita income in Venezuela has increased dramatically over the last 20 years.

In the last few years Venezuela has firmly committed itself to the development of its human resources, especially at the technical and professional levels. This investment represents one of Venezuela's most valuable assets. But the lack of basic education for large sectors of the population has been and still is widespread. In his television address launching the Nationwide Literacy Campaign (Campaña Libertadora de Alfabetizacion), President Luis Herrera Campins noted:

> Despite efforts made to obliterate illiteracy, Venezuela has today a self-declared illiteracy rate of 16%; but how many more are functional illiterates? Our latest statistics indicate that more than 1,300,000 persons over the age of 14 cannot read or write; about 300,000 do not possess any education; and more than 1,600,000 have only 1 to 3 years of elementary education.

Response to a National Challenge

Such realities were analyzed and discussed with leaders in the private sector and with influential members of the Venezuelan government. A quick response and strong support from the private sector made it possible to start developing an alternative literacy system; first, with a targeted audience on a *hacienda* (Mata de Barbara) located in the heart of the flat, hot, and inhospitable southwestern plains of Venezuela; next, in seven other areas in the country, including the poor *barrios* surrounding Caracas. The funds for these initial activities came from the Diego Cisneros Foundation, through the support of Gustavo Cisneros.

While the process of experimenting and adapting the instructional system was underway, leaders and businessmen were being contacted and sensitized to the ills suffered by millions of people, to the importance of literacy and basic education, and to the promising economic returns of investing in the development of the country's human resources. They were challenged to disprove the belief that universal literacy can only be achieved after "revolutionaries" take over, and made aware of the importance of a unified effort in pursuit of a national goal: to celebrate the bicentennial of the birth of Simon Bolivar (b. 1783) without adult illiterates in Venezuela.

All these efforts met with a positive response from private leaders and led to the establishment of a new organization: Asociación Cultural para el Desarrollo (ACUDE). From the beginning, ACUDE made the conscious decision to build the literacy program around an active multi-media campaign that stressed a strong promotional system to motivate people.

ACUDE, as a nonformal educational organization, has certain important characteristics: it is private, nonprofit, tax-exempt, and nonpartisan. It is a coordinating agency, set up to participate with other institutions, and devoted to creating and providing nonformal educational opportunities for the people, especially those who have had little or no access to formal educational systems.

ACUDE is the pivotal point in the organization, promotion, and coordination of the nationwide literacy campaign in Venezuela. CORPA, a Venezuelan firm experienced in the design of mass media campaigns, and GENESIS, a company specializing in marketing tactics, are providing invaluable assistance in

designing radio and TV messages to promote the campaign, and in designing marketing strategies.

The response from the official sector has also been enthusiastic. The Executive Committee for the Celebration of the Bicentennial of Simon Bolivar eagerly accepted the idea of including the literacy campaign as one of its most important endeavors, and the executive branch of the government wholeheartedly endorsed the idea of the campaign.

Operational Model of ACUDE

ACUDE was established in November, 1979. It is not a huge bureaucratic apparatus; it is a small, dynamic, and efficient unit, with certain characteristics:

1. ACUDE acts as facilitator and promoter of a national literacy campaign. It provides a motivation, an instructional system, and a methodology. Its major role consists of inviting others to participate in the campaign.

2. Because ACUDE made the decision to work at the motivational level, it does not assume the direct responsibility for organizing or providing complementary services to individual literacy groups. ACUDE triggers peoples' interest in already-existing institutions and grass-roots organizations.

3. ACUDE adopts a multi-media approach, with radio and TV accomplishing different, coordinated, and complementary functions. The campaign stresses the point that it is a privilege for literate people to share their literacy with others.

4. The campaign is directed at both rural and urban sectors, and the instructional system has been adapted to account for regional differences.

5. The operational model includes different components (political support, organizational resources, mass media, instructional system, etc.). It was necessary to identify those components, define their interrelations (promotion, coordination, feedback, personal interaction, technical assistance), and put them to work toward a common objective.

6. In the operational model, the only teaching-learning relationship occurs between the illiterates and the facilitator. Radio and TV messages encourage this relationship throughout the country.

7. The model does not require new classrooms or buildings, but calls for the use of already-existing resources.

8. The model assumes the development of a strong promotional system within ACUDE using mass media and community-based organizations.

Instructional System

The instructional system (called Sono Estudio) used in this literacy campaign is designed to be flexible. It consists of the following elements:

- a primer
- a 31-record set
- a record player
- a facilitator *(auxiliar)*

José Alvarez Stelling, President of ACUDE, described the system at the launching of the campaign:

> It is a simple system, easy to use anywhere, at any time. It can be adapted to the learning pace of diverse participants. It is an indefatigable teacher that repeats as many times as necessary, and that encourages reflection, dialogue, and participation in community actions. It cultivates in the participants an understanding of the importance of and the possibility for self-education, self-advancement, and self-improvement based on one's own efforts.

The instructional system is characterized by flexibility. Some highlights are:

- Flexibility in *time:* The system can be used whenever the participants and the facilitator agree to meet and work.
- Flexibility in group *size:* It can be used by one or several participants.
- Flexibility in *place:* The system can be used almost anywhere (the record player operates with batteries or conventional electric power).
- Flexibility in *length of the learning sessions:* The time commitment will depend on the decision of the participants, with the average session lasting close to two hours. On the average, the whole course can be completed within 100 sessions.
- Flexibility to adapt to the *learning rhythm* of the participants: Each person or group may advance at an individual rate.

The system teaches people to read and write, increases their vocabulary, encourages participants to discuss and share their concerns, and introduces users to the four mathematical operations. The system includes a whole series of messages in health, family life, community participation, economics, self-esteem, ethics, and democratic values.

Initial Results

Public response has been encouraging:

- In just 45 days, 15,000 Sono Estudio sets were distributed and *sold* (the price of a set is about U.S. $22.50).
- Another 60,000 sets were ordered and are being distributed.
- At the end of 1981, the first full year of the campaign, it is projected that 120,000 sets will have been distributed, sold, and used in different regions of Venezuela, including those places where formal educational services do not exist. Assuming that an average of five persons use each set, at the end of the first year, 600,000 people will have been exposed to the literacy program. ■

Wilson Velandia B., Ph.D., is Programs Executive Director of Media and Contents, Inc. (MEDCON), a private consulting firm specializing in mass media and nonformal education. As consultant to ACUDE, he has worked closely with the Venezuelan literacy campaign.

Twelfth World Conference Correspondence Education

Learning at a Distance is the theme of the Twelfth World Conference sponsored by the International Council for Correspondence Education (ICCE) to be held June 9-15, 1982, in Vancouver, British Columbia, Canada.

During the 1970's distance (or correspondence) education experienced faster growth and more radical change than any other educational area because of the use of electronic media and systematic techniques for designing instruction.

Conference topics include learner characteristics, economics of distance education, use of technological media, tutoring and support services, recent research findings, reduction of dropout rates, and distance education and national development.

The conference fee is U.S. $250 for ICCE members, U.S. $290 for non-members. A complete program and registration forms will be available in August 1981. For information on the 1982 conference and also on ICCE membership, write to: Dr. Ian Mugridge, Open Learning Institute, 7671 Alderbridge Way, Richmond, B.C., Canada. V6X 1Z9.

Help in Communications Pretesting: New Booklet Available

For those involved in planning social and health communications, evaluating audience response to messages and materials is an important part of measuring program effectiveness. Pretesting helps planners, educators, and communicators in a variety of fields to assess the audience's comprehension, attitudes, and perceptions of new information. The information obtained from pretesting can be used to make improvements while revisions are still feasible and affordable. *Pretesting in Health Communications,* now available from the National Cancer Institute, describes the purposes and principles of pretesting, and the resources needed to conduct pretesting research. It includes a glossary of terms and a bibliography, and is available in English only.

The booklet, third in a series of publications on pretesting techniques, is complemented by *Readability Testing in Cancer Communications* and *Health Message Testing Service.* Copies of the three booklets are available free of charge from: Rose Mary Romano, Office of Cancer Communications, National Cancer Institute, Building 31, Room 10A 18, Bethesda, Maryland 20205 USA.

(continued from page 6)

most village training groups have grown, averaging about 20 in the beginning and growing to more than 30 by the end. The basic and repeated use of simple visual aids appears to have contributed to this trend.

Throughout training conducted in the villages, this oral, pictorial, and written technique was used repeatedly by the Tanzanian trainers. For example, they wanted to train some village councils in better decision-making techniques, especially group decision-making. During the U.S. phase of their own training they had seen an effective and popular exercise called "The NASA Game" which was developed for training American managers in improved group decision-making. The Tanzanians re-created the exercise as "The Safari Game" substituting a situation villagers could relate to better than they could to getting lost on the moon. They prepared flipchart visuals to represent the storyline in the game. They also prepared visuals to represent the items around which people had to make decisions. Then they wrote out the storyline and the decision items in charts in Swahili. When they presented the exercise, they again used all three modes, oral, pictorial, and written Swahili.

The trainers have not yet begun to use video-playback in the village training, because in their judgment that would be bringing a little too much "magic" to the village for the first training experience. They have not, however, precluded doing so in the future. Their VTR system is battery operated, and therefore is not dependent on electricity in the village.

Residential Training

After the initial training, each village selected 15 leaders and potential leaders to come to one of the residential training centers for one month of advanced training. People from four villages came to a residential training center at one time, where they trained in groups of thirty. (A prerequisite for residential training was that all be able to read written Swahili.) In this training design, the Tanzanian trainers came up with a different mix of media to support their training.

One important training unit is leadership training. There, trainers wanted village leaders to recognize that their leadership style should be chosen on the basis of the situation and the other people involved. The purpose was to help participants broaden their range of leadership style, and to get better at matching the right style and skills to the situation. In the course of this unit, trainers used both video and audio taping and feedback frequently. Villagers participated in several role plays, which were captured either on video or audio tape. These were then played back for analysis, either by those involved in the role play, or by the entire group. The trainers reported that video and audio feedback had a strong impact on participants, particularly on those who currently held leadership positions. They often had one view of their own leadership style and skills, and when fellow villagers contradicted that view, they sometimes got defensive. When they saw themselves and heard themselves on tape, they were sometimes devastated. The trainers had to become exceptionally skillful in managing this feedback process so that it resulted in learning and change, rather than defensiveness and anger.

In another leadership training unit the design called for participants to complete a self-diagnosis on their styles and skills. If the diagnostic instrument had been printed on 8-½" by 11" paper, it would have been approximately six pages long. But in Tanzania, paper is in extremely short supply. So the trainers designed a visual display to put the instrument up in front of 30 people, and created a 1-page scoring sheet to hand out. Thus each participant used only one sheet of paper instead of seven for self-diagnosis. In view of the fact that more than 300 villagers will have been trained by the end of this year, that is not an insignificant saving.

A final way in which the trainers used videotape media was in the opening climate-setting session in residential training. In the first residential training program in October of 1980, the Minister of State for Regional Administration and Rural Development, Jackson Makwetta, opened the session with an inspiring, amusing, and perceptive description of the methods and training approaches to be used in the residential training. One of the Tanzanian trainers/media specialists taped the Minister performing live with this first group of village trainees. That tape was edited, and a narrative voice-over made, so that in future residential training openings, when villagers cannot have Minister Makwetta in person, they can have him on tape.

Orientation and Outreach

The Tanzanian team is also using mixed media in the orientation and outreach packages which they are currently developing. At the central residential training site, trainers are creating photographic displays at various locations around the center, so that they can walk visitors through the various stages of village intervention, residential training, village follow-up, technical assistance, etc., with visual support from photographs taken in the villages and in residential training. In addition, they are gathering slides and developing a script for a slidetape show which will be used as part of their outreach effort with visitors to the center. They plan to take this slide and tape package into new villages as an orientation before they begin training for needs assessments surveys.

Ultimately, the trainers plan to use both videotape and slidetape to present packages directed at villages and village development.

Conclusion

While many of these examples may be seen as routine in the eyes of U.S. trainers accustomed to such media support technology, their application in Tanzania is a new and powerful addition to the effectiveness and impact of Tanzanian training teams. As more media-based packages are developed and published, dependency on highly trained Tanzanian trainers will lessen, and the knowledge, skills, and attitudes being developed through the Training for Rural Development Project can spread beyond the several hundred villages targeted in the pilot regions, and be extended nationally to the nearly 8,000 villages which need to be reached in this decade for the project to achieve its ultimate goals. ■

As a consultant to USAID and USDA, William Le Clere is the lead trainer of trainers in the Training for Rural Development Project in Tanzania. He is a founder and director of the Institute for Planned Change, Inc., in Washington, D.C.

(continued from page 1)

Monitoring and flexibility

While we are convinced that the training program is viable, a strong monitoring component has been built in, as has sufficient flexibility to make any necessary "in-flight" course corrections.

The first notions that universal curriculum elements might exist in the field of interpersonal communications came from our early workshops, and were confirmed by later meetings of curriculum and training experts. We fully expect that the initial package of training materials presently being developed will be modified as the program progresses. The resource center at the Institute of Adult Studies has been charged with the tasks of collecting experiences from the country training programs and integrating them into revised training materials. This will, we hope, gradually improve the quality of what is taught and how it is presented.

The new training program as it now stands is a good one. There may be other ways of achieving the same goals, and surely there are other important goals which we have not focused on in this project. But the reality of the vast regiments of insufficiently trained field extension staff, largely untapped and under-used, moves us to attempt to provide the means by which they may be properly equipped to join the battle. ■

Philip Vincent is Regional Management Advisor for UNICEF in Kenya, and has worked identifying training resources in many countries.

A Framework For Telecommunications Training

In a report commissioned by the Development Support Bureau (Office of Education and Human Resources) of the United States Agency for International Development and published by the Institute for Communication Research at Stanford University, Jeanne Moulton and Peter Spain present an analysis of personnel training and functions required for successful communications projects in developing countries. Referring here only to electronic media communications, the authors break down the training for such projects into seven functional areas.

Specific categories of training for telecommunications projects include the following:

1. *Training in development policy.* Development policy planners will work in high-level ministry or government positions. They influence how and whether telecommunications media will be used to meet national development goals.

2. *Training in telecommunications policy and applications.* Media policy planners will work in ministries such as Information or Posts and Telegraphs, and their work is to implement the development goals set by others. Because they will help officials use the media effectively, they need a solid grounding in current and potential telecommunications applications.

3. *Training in telecommunications management.* Media project managers are to be the link between the program and the public it serves. They will manage and implement media-based projects, and must ensure the political support of those who initiated the project.

4. *Training in message design.* Message design specialists will prepare the messages to be broadcast. They need to know how to survey their audiences, and how to tailor material to those audiences, and they must be flexible enough to revise their programs as necessary.

5. *Training in evaluation.* Evaluation specialists will work with the message-designers in evaluating the audience make-up and characteristics before messages are produced. They will monitor and evaluate the messages after they are produced, and provide feedback at every level of the program.

6. *Training in telecommunications production.* These media specialists will transform the curricula or points to be made into the messages to be broadcast. They need skills in audio, video, production, graphics, and maintenance of hardware.

7. *Training in field supervision.* Field supervisors will work on the local level, in classrooms and villages. They must make sure the programs are understood and acted upon. These people may be village-level workers, or regional or district supervisors.

Printing for Development

Development and education projects can be significantly enhanced by low-cost do-it-yourself printing. It is possible to produce small-scale and inexpensive publications to meet specific needs using local languages and visual images that are understood by local people.

To help encourage the spread of printing as a decentralized form of communication, Jonathan Zeitlyn is researching printing methods appropriate for development projects in the Third World. Drawing on his work establishing community printing centers in Britain, and on his recent fieldwork in India, Zeitlyn plans to publish a handbook containing examples and case studies of work and projects involving low-cost printing.

The author would like to hear from readers of *DCR* having experience with specific projects or problems in connection with using printing for development. Please send suggestions, experience, and/or examples to: Jonathan Zeitlyn, 51 Chetwynd Road, London NW5, England, UK.

Looking Into Microfiche

Have you ever wished you could store or carry a large amount of research or reference material in a very small space? Why not try microfiche? This will be a familiar word to you; you have often read it in "On File at ERIC" in *DCR*. Yet you have probably never considered setting up your own microfiche library. Perhaps you think of microfiche as something only libraries and large institutions are equipped to use. Or maybe you assume that a microfiche system would be too bothersome. Both of these misconceptions need to be set straight, because microfiche can be a valuable tool.

A microfiche is actually a sheet of polyester-base film, measuring approximately 4" x 6" (105mm x 148mm), containing the photographically reduced image of a printed document. The reduction ratio of the printed material is 24 to 1. As many as 98 pages can be copied onto a single microfiche, with an eye-readable title at the top. To read the document itself, one needs a viewer.

The simplest and least expensive microfiche viewer is an ambient viewer, available from National Camera for US$24; to use it one simply inserts the microfiche, holds the viewer to one's eye, and points it toward any available light source for reading. A battery-powered light attachment is available for an additional US$8.00, making it possible to read microfiche under any light conditions, and often increasing readability by as much as 50 percent. Desktop models are available that display the microfiche on a viewing screen that usually measures 11" x 14". These models cost US$180 and up.

You might want to consider the following kinds of materials available on microfiche:

USAID/NTIS (National Technical Information Service) has microfiche documents on such topics as agriculture, health, energy, and engineering.

University Microfilms has microfiche reproductions of a wide selection of magazines, journals, and other periodicals.

From ERIC one can order a single issue of *DCR* — 16 pages reproduced on a single microfiche — for 83c.

Thus, at a comparatively low cost, one can put together a complete small library, put it in one's pocket, and carry it to a project site.

Useful Names and Addresses:

1. ERIC Documentation and Reproduction Service
   P.O. Box 190
   Arlington, Virginia 22210, U.S.A.
2. National Technical Information Service
   5285 Port Royal Road
   Springfield, Virginia 22161, U.S.A.
3. University Microfilms International
   Serials Publishing Order Department
   300 North Zeeb Road
   Ann Arbor, Michigan 48106, U.S.A.
   Will send a large catalogue of materials upon request; also supplies viewers and other hardware.
4. Computer Microfilm International
   P.O. Box 190
   Arlington, Virginia 22210, U.S.A.
   Will transfer materials to microfiche.
5. National Camera
   2000 West Union Avenue
   Englewood, Colorado 80110, U.S.A.
   Supplies microfiche hardware, hand-held (ambient) viewers, microfiche binders, and full-size readers.

Many organizations, both in the United States and overseas, offer their documents on microfiche. ■

Benedict Tisa is a nonformal educational communications consultant.

Development Communication Report, published quarterly by the Clearinghouse on Development Communication, is distributed free to over 5,000 development professionals.

A center for materials and information on important applications of communication technology to development problems, the Clearinghouse is operated by the Academy for Educational Development, a nonprofit planning organization, and supported by the Development Support Bureau of the U.S. Agency for International Development as part of its program in educational technology and development communication.

The views expressed in *Development Communication Report* are those of the authors and not necessarily those of its sponsors. Original material in the *Report* may be reproduced without prior permission provided that full credit is given and that two copies of the reprint are sent to the editor.

Readers are invited to submit typed manuscripts of no more than 1000 words and to send in photographs.

Dilemmas in Country X: Candid Discussions about Failures

This Development Dilemma is perhaps more of a cautionary tale than an actual dilemma. It raises a number of issues that frequently confront both host governments and visiting consultants working in development. The situation described is an actual one, although the people involved have chosen not to specify the country in which the events occurred.

(As always, the editor invites readers to submit reports for this column. Authors' names—as well as those of the people, agencies, and countries involved in the projects—will be withheld upon request.)

The Minister of Education in a large Third World nation, Country X, having heard about a new and successful curriculum and instruction program in a neighboring country, wanted a similar project for the schools in his own country. He invited a team of specialists from a well-known U.S. Institute to come to Country X to design and implement such a program. As is the custom in Country X, this pilot curriculum project was discussed widely at the upper Ministry levels, but was not publicized with teachers or the public.

In due time, the consultants arrived in Country X, established good working relationships with their counterparts in the Ministry of Education's team which would administer the program, and began to plan for the curriculum and instruction project in selected elementary schools. Generally speaking, all was well for several months.

Then one morning, without warning, the local daily newspaper in the capital city carried a hostile lead article with huge headlines about the project. The article strongly opposed the new program, charging that the country's school children were being made "guinea pigs," in a "secret American project." The writer stated that Country X did not need, and indeed should not have, U.S. help in teaching its children. From the article, it appeared that the program was not wanted in Country X, at least by some people. The source of the story as identified by the article was a senior official in the powerful Teachers' Union.

The mechanism in Country X for responding to press criticism was cumbersome and slow. Information prepared by the head of the American team and his liaison in the Ministry was not readily available to the press; reporters had to go through routine channels and were not allowed to speak directly to the individuals involved. These tedious procedures fed the rumor that there was something secret about the project.

The team feared that the government's press people, who had not been adequately briefed, would respond too hastily or intemperately to emotional questions from the press, parliament, teachers, or parents who had read the original newspaper story. The result might be the cancellation of the project, and the loss of a great deal of time and work by dedicated people.

Even though, in time, the newspaper dropped this story to pick up on another more sensational topic, a number of questions had been raised, some of which by their very nature remain unanswered.

* * *

As developing nations phase out foreigners and expatriates, the roles of the foreign consultant and of the person inviting the assistance inevitably become more difficult. And while it is generally advisable for such consultants to keep a low profile, an irony of the situation is that in some countries, consultants may lose the respect and support of local officials if their profile is *too* low. Similarly, the person using the consultants may prefer not to publicize the foreign assistance, but by *not* publicizing the consultants' role, that person may then run the risk of appearing to be hiding something.

Fortunately, the development of the curriculum project had been collaborative from the start, though even that collaboration raised another dilemma: when the newspaper publicly attacked the project, the X-country staff on the team was caught with divided loyalties. Those team members were in a sense "guilty" by their association with the Americans, even though they believed strongly in the value of the project. Most people working in development are keenly aware of the growing ambivalence in the Third World about foreign expertise: folks want it and often request it, but at another level, they *don't* want it, they resent needing it, and feel it is offensive to have experts "imposed" on them even when they themselves invite the experts.

One certainty that emerges from this cautionary tale is that, by the very nature of development work, flaps and misunderstandings are inevitable. The press everywhere is eager for a good story, especially a sensational one. Men and women experienced in development work anticipate such events, and realize that the stronger the collaborative relations built up in host countries between foreign consultants and the people using them, the better the project will be able to weather the storms that may buffet it. ■

Development Communication Report

Clearinghouse on Development Communication

1414 22nd Street, N.W.
Washington, D.C. 20037 USA
Tel. (202) 862-1900
Cable: ACADED

Jill Merrick, Director
Stephen T. Martin, Assistant Director
Heddy Reid, Editor
Judy Brace, Resource Center Manager
ISSN 0192-1312

AED
International Division
Academy for Educational Development

Training, Logos, Communications